



WASHRAG

Volume 3 Issue 12 December 2001

N3SH WA3SH

www.washarc.org

Changing of the Guard

I'd like to take this opportunity to thank you all for voting me in as WASH President for 2002.

A big thank you goes to Ron, WN3VAW for his many efforts over the last 3 years as President. Ron's dedication, enthusiasm and leadership for the WASH club were greatly appreciated (flattery will get you nowhere, but don't let that stop you — ed.).

For those of you who do not know me, I'm the guy with the longest (regular) commute and I can be found on the 146.955 repeater on any given workday with the Parking-

Lot-West report. My callsign is also not native to the area and is usually the subject of much ribbing. (Ahem!, that why I haven't changed it!) I got my call in Colorado Springs, CO almost 10 years ago and since then, have enjoyed both the hobby and service aspects of amateur radio.

Much like many other folks, it is a challenge to integrate my other responsibilities with my hobby interests. I accepted this position because I hope to make a difference for the club, it members and folks newly entering the hobby (and because I received the most important vote from my wife Annette, NØWPV)

> 73, Paul Lusardi NØVLR, President 2002 Wireless Association of South Hills, Inc. N3SH/WA3SH

Santa Net December 23rd

The 2nd Annual WASH Santa Net will be held on the 146.955 and 443.650 Repeaters on Sunday, December 23rd, starting at 8:00 PM (one hour before the weekly WASH FM Net). Net Control Station will again be Bryan Beyer K3OL

All WASH members and other area radio amateurs in range of these repeaters are encouraged to bring their children and neighbor's and relative's children of all ages who wish to make a last minute request of Santa to their microphones during this special net.







Next Meeting: Holdiay Party, December 13th, 2001

The next monthly meeting of the Wireless Association of South Hills, Inc. will be our annual Christmas/Holiday Party on Thursday, December 13th, at Al's

Cafe, 440 McMurray Road, Bethel Park, starting at 6:30 PM.

We've got a few special things in the work for the party, so don't miss out!

If you'd still like to come and you haven't already been in touch with Carol KB3GMP, contact her immediately to see if we can still squeeze you in. Cost is \$12 per adult, \$6 for children under 12 for club members.

Talk-in on the 146.955(-) N3RNX/R and 443.650(+) N3BV/R Repeaters (131.8 PL). All members, guests and interested parties invited.

Inside this issue:

Amateur Radio Calendar	2
WASH Club News	3
Meeting Minutes	4
Antenna Analyzers Part II	5
Packet is Dead!	6
DX News Briefs	8
WASHFest 2002!	10

Page 2 WIRELESS ASSOCIATION OF SOUTH HILLS

WASH FM Net 9:00 PM ET Sunday Nights on the 146.955 and 443.650 Repeaters LOOKING

WASH 2nd Annual 2 Meter FM Contest January

12th, 2002

AHFAD:

- Breezeshooter's 10 Meter Groundwave SSB Contest February 23rd, 2002
- WASHFest 2002, February 24th, 2002

December 2001

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1 SkyWarn Recognition Day WPA Hilltoppers VE Tests RA Erie VE Test North Hills ARC Elmer Net
2 Ellwood City ARA Meeting OCWA Pittsburgh Net South One ARES Net North Hills ARC Teen Net WASH FM Net	3 Greater Pgh VHFS Meeting Breezeshooters Net Beaver Co Public Service Net 2 Rivers ARC Net Triple 'A' ARA Net	4 Butler Co ARA Meeting SHBP&M Meeting Skyview RS Meeting SATERN Net North Hills ARC Club Net	5 Uniontown ARC Meeting Steel City ARC Social Night Allegheny Co SKYWarn Net Allegheny Co ARES Net Westmoreland Co ARES Net	6 WACOM Meeting Radio Association of Erie Meeting	7 ARRL 160M Test Elco ARS Meeting	8 ARRL 160M Test Breezeshooters VE Test Nittany ARC Offee Call North Hills ARC Breakfast 2 Rivers ARC Ham N Teggs Breakfast 2 Rivers ARC Hidlady Dinner Pittsburgh Antique RS Luncheon
9 Hannukah ARRL 160M Test QCWA Pittsburgh Net South One ARES Net North Hills ARC Teen Net WASH FM Net	10 Bum of the Month Lunch ARL of Lawrence Co. Meeting Breezeshooters Net Beaver Co Public Service Net 2 Rivers ARC Net Triple 'A' ARA Net	11 Foothills ARC Meeting Coke Center ARC Meeting Nittany ARC Meeting Ft.Venango M&KC Meeting Punxsatawney AARC Meeting SATERN Net	North Hills ARC Meeting Laurel Highlands VHF'S Mtng Steel City ARC Social Night Allegheny Co ARES Net Westmoreland Co ARES Net	WASH Holiday Party Horseshoe ARC Meeting Beaver Valley ARA Meeting Triple 'A' ARA VE Test	14	15 ARRL 10M Test 2 Rivers ARC VE Tests North Hills ARC Elmer Net
16 ARRL 10M Test Elk Co ARC Meeting QCWA Pittsburgh Net South One ARES Net North Hills ARC Teen Net WASH FM Net	17 Steel City ARC VE Test Monessen ARC Meeting Breezeshooters Net Beaver Co Public Service Net 2 Rivers ARC Net Triple 'A' ARA Net	18 Steel City ARC Meeting Tri-County CW ARC Meeting McKean Co ARC Meeting Juniata Valley ARC Meeting Pymatuning ARC Meeting SATERN Net	19 Huntington Co ARC Meeting Allegheny Co SKYWarn Net Allegheny Co ARES Net Westmoreland Co ARES Net	20 Triple 'A' ARA Meeting Greene Co ARC Meeting Somerset Co ARC Meeting Cumberland Valley ARC Meeting	21	22 Nittany ARC Coffee Call North Hills ARC Elmer Net
QCWA Pittsburgh Net South One ARES Net North Hills ARC Teen Net SANTA Net WASH FM Net	24 Christmas Eve Breezeshooters Net Beaver Co Public Service Net 2 Rivers ARC Net Triple 'A' ARA Net	25 Christmas Day SATERN Net North Hills ARC Club Net GPVHFS Swap'N'Shop	26 Kwanza Fort Armstrong WA Meeting Steel City ARC Social Night Allegheny Co ARES Net Westmoreland Co ARES Net	27 WACOM Board of Directors Meeting	28	29 WASH Breakfast North Hills ARC Elmer Net
30 QCWA Pittsburgh Net South One ARES Net North Hills ARC Teen Net WASH FM Net	31 Straight Key Night Breezeshooters Net Beaver Co Public Service Net 2 Rivers ARC Net Triple 'A' ARA Net	1/1 New Year's Day	1/2 Steel City ARC Social Night Allegheny Co SKYWarn Net Allegheny Co ARES Net Westmoreland Co ARES Net	1/3 WACOM Meeting Radio Association of Erle Meeting	1/4 Elco ARS Meeting	1/5 WPA Hilltoppers VE Tests RA Erie VE Test Nittany ARC Coffee Call North Hills ARC Elmer Net

WASH 2002 OFFICERS

Paul Lusardi NØVLR

Frank Bobro KB3FZU

Steve Lane W3SRL

Paul Lusardi NØVLR

Bob Sanford AA3FI

Bryan Beyer K3OL

Steve Lane W3SRL

Larry Comden K3VX

Carol Danko KB3GMN

PL 131.8

PL 131.8

PL 131.8

Kevin DeRose N3KFD

Bill Hill W3WH

Bill Hill W3WH

(open)

Jacqué Gosselin N3ZEL

Harold Rosenberger KB3CPI

Mark Stabryla N3RDV

EXECUTIVE COMMITTEE:

President
VP/Secretary
VP/Treasurer

AND WE COULDN'T DO IT WITHOUT:

N3SH / WA3SH Trustee N3SH / WA3SH QSL Manager VE Team Liaison Webmaster

Quartermaster

N3SH/WA3SH WASH Net Managers

FM Net (2 Meter & 70 cm) Digital (10 Meter)

WASHFest 2002 Co-Chairman (South Hills Hamfest)

Operating Events

Field Day 2002 Chairman Ways & Means

Media Communications

CLUB-AFFILIATED REPEATERS:

 Mt. Lebanon
 N3RNX/R
 146.955

 Mt. Lebanon
 W3SRL/R
 442.550 +

 Canonsburg
 N3BV/R
 443.650 +

N3SH/WA3SH WASHNET, the weekly on-air net of WASH, meets every Sunday Night, 9:00 PM ET, on the 146.955 & 443.650 repeaters. All radio amateurs, WASH members or not, are welcome to join in!

The 10 METER DIGITAL N3SH/WA3SH WASHNET is on Hiatus until further notice. Please contact Paul NØVLR for more information.

THE LEGAL STUFF

"The WASHRag™" (formerly "The Mariner ™") is the Official Newsletter of the Wireless Association of South Hills, Inc. (WASH)

Published Monthly with occasional Special Editions as warranted.

This issue is © Copyright 2001 by the Wireless Association of South Hills, Inc.

Editor & Publisher: Ron Notarius WN3VAW

Permission is granted to other Amateur Radio publications to reprint articles in this issue, provided the original author & "The WASHRag™" are given credit. Comments, articles, and requests for copies of or information about "The WASHRag™" should be mailed to the editor:

Ron Notarius WN3VAW

3505 Rosalia Avenue, Castle Shannon, PA 15234-2317 wn3vaw@njdxa.org, wn3vaw@arrl.net OF wn3vaw@fyi.net

"The WASHRag", "The Mariner", SHARCfest, South Hills Hamfest, WASHfest, WASHfest 2002, N3SH Net, WASSH Net & WASHNet are TM trademarks of the Wireless Association of South Hills, Inc.

The Wireless Association of South Hills, Inc. was founded in 1993 as the original South Hills Amateur Radio Club, and operated under that name through 1998. WASH was also known briefly in late 1998 as the N3SH Amateur Radio Club. It is not in any way affiliated with the "South Hills Amateur Radio Club, Inc." and is not responsible for that group, it's members, or it's actions in any way shape or form.

As always, special thanks to the owners of both the N3RNX/R Repeater System and the N3BV/R Repeater System for permitting the **Wireless Association of South Hills, Inc.** and it's members to use their repeaters for club purposes.

VOLUME 3 ISSUE 12 Page 3

WASH Amateur Radio Club News Briefs

Next WASH VE Test January 18 th!

Our Next VE exam sessions will be **Thursday, January 18th, 2002**, at **7:00 PM**, at the **John McMillan Presbyterian Church**, 875 Clifton Road, Bethel Park, PA. Talk-in on the 146.955 MHz and 443.650 MHz repeaters. All examiners are ARRL VEC affiliated.

Walk-ins are always welcome, but if you plan on attending the test session, please contact VE Team Liason Jacqué Gosselin N3ZEL: Telephone (724) 746-9235 or E-Mail: n3zel@fyi.net

Please bring the following to your test session:

Picture ID or other suitable identification (2 forms of ID required)
Pen / Pencil / Calculator

Original FCC license plus a copy of license (if upgrading)
Original CSCE plus a copy of CSCE (if upgrading)

Check or Cash in the amount of \$10.00 (payable to: ARRL VEC)

Our November Guest Speaker . . .

The ARRL VEC has stated that the cost for ARRL VEC exams will remain at \$10. No increase is planned for 2002.

ARRL will be adding a QRP DXCC award effective January 2nd.

Details can be found at www.arrl.org



Paul NØVLR (right) introducing guest speaker Brett Valentine N3BV, at the November meeting. Brett had a full house enjoying his every word. Thanks again!



The WASH Breakfast Gang enjoyed a pleasant November 24th morning at *Dietz's Restaurant* for their monthly breakfast gettogether. This month's contingent included KB3CPI, W3VFA, N3SBF, W3RWS, N3ZNI, N3ZEL and WN3VAW discussing Hunting season, Radio Shack, Thanksgiving leftovers, parades, canning apple butter, and how best to deep fry a turkey. The weather will be colder this month, but the coffee (high test or decaf) will be hot, so why not join us? The next Club Breakfast (and last for 2001) will be Saturday, December 29th, at *Dietz's Restaurant*, Caste Village Shops, Baptist & Grove Roads. Come down and share a cup of coffee with us! Hope you can make it!

Congratulations to Ed N3ZNI on confirming his 50th State for WAS on November 14th! DXCC to follow?

Dayton 2002 Reservations have proved to be very popular, based just on the e-mails that we've seen to Greg KQ3DX! Several people have asked, what happens if all of the rooms get taken? Easy — we'll try to get a few more! These are the "new" dorm rooms at the University of Dayton. Each room includes a kitchenette and TV antenna hookup (bring your own pots, pans, silverware and TV) and has four beds (two bedrooms) for up to four adults per suite. Cost is \$240 per suite for the entire Dayton weekend — that works out to as little as \$60 per person! But remember: Greg needs to know as soon as possible, and payment in full must be sent to U of D by the end of January. For more information, contact Greg at tony-babin@msn.com.

WASH 2002 Dues are coming due next month. Doesn't seem like a year already, does it? Dues and the hamfest are the two main sources of income for the Wireless Association, so it's very important that you get your dues in as soon as you can.

Speaking of which, you'll notice that the color coding has changed for club members over on Page 4. **Blue** indicates 2002 dues paid, and Silent Keys; **Black** indicates 2001 dues paid. And **Green**? Let's put it this way: Don't worry about 2001 or earlier, just send in your 2002 dues & app & all will be forgiven! <g> (Remember, last minute changes may not be reflected until next month. Any questions on your status? Contact VP/Treasurer Mark N3RDV)

Cheesebits, the official newsletter of the Mt. Airy VHF Radio Club over in EPA (better known as the Pack Rats), one of the best VHF/UHF clubs in the country, recently converted over to a PDF format and e-mail distribution system. The WASHRag was named in their December issue as one of the inspirations for the switch! Thanks guys — we're honored. And remember, flattery gets you nowhere, but don't let that stop you...Seriously, if you're interested in VHF/UHF concepts and contesting, contact Rick K1DS at rick1ds@hotmail.com and see if he can send you a sample issue.

WASH 80 Meter DXCC Challenge: Sorry, nothing to report this month. Weather's outside in November was just too good for much DX'ing on the low bands!

If you read this far down, don't forget that there will be a raffle at the WASH Christmas/Holiday Party of an ICom IC-Q7A hand held. Raffle tickets for the HT will only be available at the party, so that's one more incentive to go! Contact Carol KB3GMP if you need to squeeze in a last minute reservation at kb3gmp@msn.com or call 412-884-1466.

Happy Holidays to One and All — From the Wireless Association of South Hills

Minutes, November 8th Meeting

Paul Lusardi NØVLR, VP/ Secretary, WASH

The meeting was <u>called to order</u> at 19:10 by WN3VAW. There were 27 members and 1 guest present.

A moment of silence was observed for recent silent keys.

Introductions were then made all around, as is our custom.

A motion was made to <u>accept the minutes</u> of the October meeting as published in the newsletter was made by Bob W3RJM, seconded by Carol KB3GMN and carried.

Committee Reports:

Treasurer (N3RDV): Read and accepted.

<u>Secretary</u> (NØVLR): Asked if there was any interest in a SkyWarn class. Arrangements to be made for a SkyWarn presentation at a future meeting.

<u>VE Team</u> (N3ZEL): Thanks to all who volunteer time at the VE sessions <u>Repeaters</u> (W3SRL/N3RNX): Nothing new to report. All is well.

FM Net (K3OL): Santa net upcoming on December 23rd. NCS's needed as always.

Activities (KB3GMN): Reminder that the December meeting will be our annual Christmas/Holiday Party at Al's Café on December 13th. Cost remains \$12 adults, \$6 children, and she needs the money by the end of the month. Carol also thanked everyone for the flowers. (NØVLR) Paul suggested a contest voice keyer for next Kit Night project. KB3HFP suggested a DTMF decoder kit.

<u>Hamfest</u>: (WN3VAW for W3SRL/W3WH): will try to obtain a list of mailing addresses from alternative to ARRL list, to get non-ARRL members. Probably from a call address CD.

<u>Public Service</u>: (N3RDV): ARES Simulated Emergency Test scheduled for November 17th on the 147.09 Repeater.

Contests: (K3VX): PA QSO wrap up: lots of points, fun, and a club record! (NØVLR) presented the N3SH operators with a "Clean Sweep" broom to commerate their operation. (N3ZNI): WASH 2M FM Contest in January: New exchange (zip codes), additional club stations for bonus points, and Log-EQF will support the contest under the new rules. (N3UE): Breezeshooters Groundwave Contest will be split into a Phone contest in February and a CW contest in March. Weekends picked to avoid conflict with major contests in both months.

Newsletter (WN3VAW): No report

President (WN3VAW): No Report.

Elections for 2002 Officers: Nominations opened. Pete N3RNX officially declined last month's nomination. Motion to close nominations by K3VX, second by NØPEU and carried. Brief discussion on how to fill vacant VP/Secreatry position. Frank KB3FZU self-nominated to complete NØVLR's term as VP/Secretary, second by W3RJM. Move to close nominations by W3RJM, second by N3QMV and carried. Motion for the Secretary to cast one vote for Paul NØVLR as President, Mark N3RDV as VP/Treasurer, and Frank KB3FZU as VP/Secreatry for 2002 made by acclimation and carried.

Old Business: None

New Business: Carol KB3GMN motioned that the club purchase and raffle off an ICom IC-Q7A hand held at the Holiday Party.

Many seconds and carried. Bob W3RJM and Ed N3ZNI volunteered to find the best price available for the radio.

Good of the order: None

Motion to adjourn: by acclimation and carried.

Meeting was adjourned at 20:20

Following a short break, <u>presentation</u> by Brett N3BV on repeaters and repeater systems followed.

WASH Spotlight: N3UE



"It's been a year in the making, it's not done yet, but here I am in my new shack and it's almost completed. I can't get a decent picture but here is an attempt!"

Photo courtesy of & ©2001 Ed Wolf III N3UE

Monthly WASH Breakfast Saturday, December 29th



KB3EPI

KB3ERQ

Please join us for the next WASH Breakfast! We get together on the LAST Saturday of every month for a chance to informally sit down, shoot the breeze, compare notes, and just have a good time together!



Join us at *Dietz's Restaurant*, Baptist and Grove Roads in the Caste Village Shops. Start time is about 8 AM until whenever. Monitor 146.955 & 443.650 for talk-in or any last minute changes. All are welcome, WASH members or not, amateurs or not! See you there!

Wireless Association of South Hills Membership

Through November 30th, 2001
List complied by
Mark Stabryla N3RDV, Vice President/Treasurer

VOLUME 3 ISSUE 12 Page 5

The Electronic "Swiss Army Knife" — Part II Steve Lane W3SRL

Last month's article described using the MFJ-259 antenna analyzer for tuning an antenna for maximum efficiency, and also determining the 2:1 bandwidth (also referred to as the useable bandwidth) of a typical mobile antenna. While this is probably the most common use for an antenna analyzer, it mere scratches the surface of what this little unit can add to your ham toolbox.

This month we're going to explore several of the measurements that the MFJ-259 can make pertaining to 50-ohm coaxial cable; Coax loss stated in terms of dB, distance to fault, and percentage of transmitted power.

To measure the actual (as opposed to "advertised") loss in a particular section of 50-ohm coaxial cable, simply connect the cable to the SO-239 connector on the analyzer unit. Make sure that the other end of the cable is not connected to any type of equipment. Turn the analyzer on, and after the self-test has completed, press the mode switch once. The display should momentarily read "Coax Loss" and then display the operating frequency. Select the frequency range on the front panel selector where you will be using this cable, and then use the tuning frequency knob to zero in on the exact operating frequency that you wish to analyze. This frequency will be displayed on the top line of the LCD display, and directly below this will be the Coax Loss in dB for that operating frequency. Don't be terribly surprised to find that there is a difference between the loss figure that the manufacturer gives, and the actual reading that you observe, as quite a number of factors can affect the actual performance of a particular piece of coax cable. If the difference is significant however, say more than about 10-15 percent or so, a call to the cable manufacturer may be in order.

For our second example, we're going to analyze a piece of coax to find the approximate distance to a fault. Let's say for the sake of this article, that you took down a run of expensive 9913 coax last fall that seemed to have a dead short in it. While cleaning out the garage you decided to try and find out where the short was and maybe even fix it before you decide to toss it in the trash.

Connect the cable to the analyzer as we did in the last example, and turn the analyzer on. Press the "mode" and "gate" buttons simultaneously, and the word "Advanced" will appear briefly in the LCD display. Press the "mode" button twice until the "Distance to fault in feet" message briefly appears in the display. Select a frequency where the impedance reads as close to zero as possible, and the reactance reads zero. Press the "gate" button and the blinking "1st" display will becomes "2nd", and once again dip the impedance meter and adjust for the lowest possible reactance is found. Press the "gate" button again, and the display will indicate the distance to the fault in feet. Let's say the reading given here is 38 feet. Remember: The meter is "dumb" and has no idea what kind of cable is attached to it. This reading is the Electrical length to the fault, not the Physical length. To find the Physical length to the fault we need to know the cables rated velocity factor, found in the manufacturer's specifications. In the case of Belden 9913, the factor is 84%. So multiply 38 feet times .84 to get 31.92, or roughly 32 feet to the fault.

Sure enough, right around 32 feet from the meter we find a pinch in the line partially sliced through the outer jacket, the braid and the inner insulation of the cable and a couple wild strands of the braid were pressed down into the inner core. Hmm. Maybe the neighbor kid got a little wild with the mower one day!

For our last example this month, we're going to figure out the actual percent of transmitted power that is reaching the far end of the coax. Once again, connect the rig's end of the coax to the meter, but this time connect the far end to your antenna system, and power up the antenna

analyzer. Press the "mode" and "gate" buttons simultaneously to



get into the advanced menu, and then press the "mode" button four times. The display should flash "% Transmitted Power" briefly. Select the operating range and then dial in the desired frequency. The display will then display SWR in terms of the percentage of power that actually reaches the antenna. Important! Keep in mind, that this is the electrical figure that the transmitter "sees" at that frequency. This does not indicate what is actually radiated from the antenna system! In

other words, if you have a tuner in the line between your rig and antenna, the rig may be happily pushing its full rated 100 watts up the coax, because the tuner "fools" the rig into seeing a perfect 1.1:1 SWR. Just because your tuner will "load up" your 10-meter dipole on 160 meters doesn't mean it is actually going to radiate anything there! The tuner's job is to keep the high-SWR fold back circuitry in your rig from coming into play, and cutting the rig's output down to zilch. In this case, feeding a horrible antenna system with 100 watts may radiate a watt or two, but if the rig only radiates a watt or two to begin with, only a small fraction of that flea power will be radiated. Think about it!

The important thing to remember here is that the antenna analyzer only "sees" what your rig is seeing on the end of the coax when used in this mode. It is simply another way of expressing SWR. To know where your antenna system actually performs at its best, you must take the time to use the antenna analyzer in its primary mode, find the resonant frequency for each of the bands the antenna is designed to operate in, and adjust as needed for maximum efficiency. (Remember the 2:1 bandwidth I mentioned last month?)

Well folks, that's it for this month. Next month we'll get into a handful of other simple uses for the MFJ Antenna Analyzer in my final installment of this series.

Marconi's First Trans-Atlantic Transmission 100th Anniversary December 11th – 16th 2001

The Marconi Radio Club W1AA, and The Falmouth Amateur Radio Association Amateur Radio operators are making plans to celebrate a Marconi world historical event. December 12th, 2001 will mark the 100th anniversary of the first Trans-Atlantic radio transmission by Guglielmo Marconi. That signal was a series of " S S " transmitted on CW across the Atlantic Ocean from Poldhu, Cornwall, England to Saint John's, Newfoundland.

The Marconi Radio Club will be using the call sign W1AA/CC and will be operating from Cape Cod, Massachusetts, U.S.A. the location of Marconi's 1903 Trans-Atlantic radio station. Marconi's 1903 call sign was " C C "

See this link for times, frequencies and modes of operation for W1AA/CC.

http://www.qrz.com/database?callsign=w1aa

 Bob Doherty K1VV, President Marconi Radio Club W1AA

FAR Scholarships 2002 – 2003

Foundation for Amateur Radio, Inc. Courtesy Hugh Turnbull W3ABC

The Foundation for Amateur Radio, Inc., a non-profit organization with headquarters in Washington, DC, plans to administer sixty-two (62) scholarships for the academic year 2002 – 2003 to assist licensed

Radio Amateurs. The Foundation, composed of over seventy-five (75) local area Amateur Radio Clubs, fully funds seven (7) of these scholarships with the income from grants and it's annual Hamfest. The remaining fifty-five (55) are administered by the Foundation without cost to the various donors.

Licensed Radio Amateurs may compete for these awards if they plan to pursue a full-time course of studies beyond high school, and are enrolled in or have been accepted for enrollment at an accredited university, college, or technical school. The awards range from \$500 to \$2500 with preference given in some cases to residents of specified geographical areas or the pursuit of certain study programs. Clubs, especially those in **Delaware, Florida, Maryland, Ohio, Pennsylvania, Texas, Virginia and Wisconsin** are encouraged to announce these opportunities at their meetings, in their club newsletters, during training classes, on their nets and on their World Wide Web pages.

Additional information and an application form may be requested by letter or QSL card, postmarked prior to **April 30th, 2002**, from:

FAR Scholarships Post Office Box 831 Riverdale, MD 20738

The Foundation for Amateur Radio, incorporated in the District of Columbia, is an exempt organization under Section 501(C)(3) of the Internal Revenue Code of 1954. It is devoted exclusively to promoting the interests of Amateur Radio and those scientific, literary and educational pursuits that advance the purpose of the Amateur Radio Service.

Safe Internet Shopping Practices

Jim Benedict N8FVJ courtesy eHam.Net

When shopping on the Internet, this holiday season or otherwise, the information below will help protect your interests. A little effort may save you thousands of dollars.

- Check the sellers amateur call sign with the shipping address. If your "Call" book is outdated, see, www.eham.net, www.qrz.com, www.arrl.net and other sites that have a "Call Search" data base. One of the top clues is a bogus "call sign".
- 2) Be careful shipping to another address. If it is the person's place of employment, request the telephone number to verify it. Tell them it is a "backup." You do not have to get specific for your reasoning.
- 3) Ask for a telephone number at the residents home (shipping address). A bogus or disconnected telephone number is a bad sign. If someone can not afford a telephone line, how can they afford amateur radio gear! Computer access is now available at the library in town or at the prison where they used to reside. They view it as just another handy tool to defraud others.
- 4) Send all packages with a 'signature required' and tracking number. This creates a paper trail for authorities. Request the

(Safe Internet Shopping Continued on page 7)

Packet Is Dead!

Tony Petruccelli KE3ED courtesy BCARA "Tell-A-Ham"

I am the ARRL Assistant Section Manager for Packet in Western Pennyslvania. As the ASM of Packet I'm here to tell you something you already know: *Packet is dead.* Why? I'm sure you can think up as many reasons as me, but I'll name a few:

- Packet is slow (typically 1200 baud)
- The Internet is much faster, more colorful, full of graphics & accessible.
- Not a lot of activity.

Right? So for these, and perhaps many other reasons, packet is dead to a great number of Hams out there. But, it seems packet is in good company (or at least not alone) with other modes that I see as dead or dying. Among them are CW, ATV, SSTV & RTTY. Why do I say these modes are dead too? Let's take:

- CW testing has been reduced and in fact groups are lobbying to have the code eliminated completely from licensing exams. Oh, and don't think your CW skills will help you if you're lost in a boat somewhere, the Navy and Coast Guard are no longer listening for you.
- ATV The equipment is quite expensive. Why should I spend so much money on equipment when I don't even hear of anyone else operating there?
- SSTV sure, you hear guys sending pictures back and forth, but compared to the number of all the hams out there, the percentage is quite small.
- RTTY why, that's been put of business by PSK31, hasn't it?
- Internet chat rooms and voice facilities are replacing HF voice.

And so and so on. Even 2-meter hand helds are not safe. Cell phones and FRS radios, both of which require no license, are very attractive alternatives to that amateur HT. People just don't marvel at the ability to perform an autopatch when they have a cell phone hanging from their belt.

Actually, what I'm trying to illustrate is that a mode is only as dead as we allow it to be. If we don't want to use something we can come up with plenty of reasons not to use it. But I believe that when we do, we are limiting ourselves and not exploiting our capabilities to their fullest potential. We're shooting ourselves in the foot by poo-pooing a mode only because we don't like or understand it.

I once had someone tell me that packet wasn't usable in emergency drills because templates for the official forms, used by the emergency agencies, were not available in packet programs. My response then was to do it! Adapt them. If they aren't available, be the first to make them up. But for the past couple of weeks I've had time to reflect that reasoning again. In light of the recent tragedies in New York & Washington DC, I seriously doubt that any emergency agencies would have rejected any emergency traffic relayed with this mode simply because the proper form was not used. Let's be serious!

Since I am the ASM for Packet, my duties are to promote this mode, so I will limit my proposals to those areas. First of all, let's look at packet and what it can do for us. As you may or may not know, packet allows us to connect a computer and radio to exchange data in an error correcting environment. However, Packet is more than jus the full service bulletin boards, that forward messages all over the world, to which we're all pretty accustomed!

Try to tell someone who uses a Packet Cluster for chasing DX that packet is dead, & he'll probably shrug his shoulders, say "whatever," then go back to his screen to look for that illusive DX country to appear as a spot on the network.

How about APRS? From Packet's grave comes new life in the way of

(Packet is Dead! Continued on page 7)

VOLUME 3 ISSUE 12 Page 7

" 'twas The Night..."

'Twas the night before Christmas and all through the shack
The rig was turned off and the mike cord lay slack.
The antenna rotor had made its last turn,
The tubes in the linear have long ceased to burn.

I sat there relaxing and took off my specs, Preparing to daydream of armchair DX, When suddenly outside I heard such a sound, I dashed out the door to see what was around.

The moon shone down brightly and lighted the night-For sure, propagation for the low bands was right. I peered towards the roof where I heard all the racket, And there was some guy in a red, fur-trimmed jacket.

I stood there perplexed in a manner quite giddy. Just who was this stranger - di di dah dah di di? He looked very much like an FCC guy, Who'd come to check up on some bad TVI.

I shouted to him, "OM, QRZ"
"Hey, you by the chimney, all dressed up in red."
I suddenly knew when I heard sleighbells jingle.
The guy on the rooftop was jolly Kris Kringle.

He had a big sack full of amateur gear, Which made a big load for a prancing reindeer. Transmitters, receivers, for cabinets and racks, Some meters and scopes and a lot of co-ax.

He said not a word 'cause he'd finished his work He picked up his sack, then he turned with a jerk. As he leaped to his sleigh, he shouted with glee, And I knew in a moment he'd be QRT.

But I heard him transmit as he flew o'er the trees "Happy Christmas to all, and to all seventy-three's."

Via Internet — Original Author Unknown
This Version courtesy "NY6ZMD@earthlink.net"

(Safe Internet Shopping Continued from page 6)

- 'seller' to provide a tracking number. This gives you a verification of shipment and time to perform a 'stop delivery' request. Make sure your carrier has this service!
- 5) Search engines on the internet can verify a persons address. Yes, there is no privacy anymore, so use it to your advantage. The information may even state how many years the person owned the residence. This does not work with renters.
- 6) Be careful of swaps or trades with very desirable equipment and stating "trade for this" or "what have you got"? Looks like someone is fishing for a fast turnover.
- 7) Tell the person you are scheduled to visit a relative in their town and want to set up an "eyeball" swap at the local Burger King. You can cancel this the next day and use a mail carrier service. If they have any excuse, move on quickly!
- 8) Scammers usually do not have good writing skills. Poor spelling and verbiage is a concern. A spell checker is still "foreign" to some computer operators.
- 9) Finally, do not send anything to a motel, campgrounds or a "halfway" house. Yes, this has happened to others.

The final question- is the author a police officer? No. I just do not want to get "taken".

(Packet is Dead! Continued from page 6)

the Automatic Packet Reporting System. Here is a system that tracks a moving station on a map and allows directed or indiscriminate messaging to be sent and received at the same time! Imagine watching a friend or loved ones' progress on a map, perhaps giving you information such as estimated time of arrival, their speed, etc., while typing messages back and forth with them! Not bad for a dead mode.

And don't forget the features that made Packet attractive years ago. Simple mailboxes set up on a frequency for private mail. Sure, email on the net is quick and convenient, but what happens when the phone lines are down? Or perhaps you just don't really want or need Internet access at \$20/month just to have mail.

The point is that we have invaluable tools available to us right now, and shame on us for not using them. I think CW is a shining example of probably our most basic forms of communications, yet it's utility is sometimes unparalleled. The same can be said for packet's most rudimentary or basic functions.

Packet is cheap, portable, accurate, and believe it or not, quite private. Let's go back to that emergency situation again. The frequencies are active with all kinds of voice traffic. Anyone with a scanner can hear what you're saying. For one reason or another you may not want that. At least with packet, the audio is indistinguishable and probably can only be decoded by hams with a TNC. With Packet in it's grave, who has those anymore? (HI HI!)

Also in this case, packet is going to get that information through faster and more accurate than voice because we won't have to repeat the message several times to clarify between 16 and 60 cases of supplies, or have to spell a long list of names phonetically to get the spelling right. Not to mention that more than one QSO can take place on the same frequency at the same time. Try that with voice.

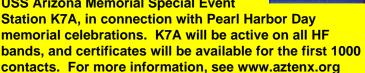
You may be thinking, OK Tony, that's all fine and well but what good is Packet to me and my group? Well, I've outlined several examples already. Want a reliable way to keep in touch with your club members? Set up some mailboxes on an established frequency. Articles for your club newsletter could easily and conveniently be left in your editors mailbox for later retrieval. The list goes on.

Weather modes could be put on the air for SkyWarn assistance. APRS would be an invaluable tool for SkyWarn. What better way for the National Weather Service or your local EOC to keep track of it's spotters and operators in the field than to see their exact position on a map?

Your imagination is the only thing that limits your uses of Packet. If Packet is dead, it's your own fault.

K7A USS Arizona Memorial Special Event December 7, 8 and 9th

The Arizona Desert Chapter of Ten-Ten and the Spook Hill ARC will sponsor the USS Arizona Memorial Special Event



Superstition ARC courtesy Amateur Radio Newsline

Waiting for D68C?

Phil Whitchurch G3SWH courtesy Ron Loneker Sr. KA2BZS

This is concerning the status of the D68C QSL cards. I am sorry that I am not able to respond personally, but the volume of incoming e-mails prevents this.

If you are requesting confirmation that I have received your QSL card, I really have no idea. All incoming card requests are bundled together by date or their arrival and stored in large cardboard boxes. At the time of writing I have six such boxes full of envelopes, representing several thousand cards! I am sure that you will understand that I have not kept a record of each incoming card.

If you are requesting the progress of the QSLing process, I received delivery of the cards from the printers in Germany on 13th June 2001.

I will now start replying to the incoming requests strictly in order of their date of arrival. Any applications which do not immediately check with the computer log (i.e. requiring a manual search of the log for a "busted" call or whatever) will go into the "hospital" box to be checked after the bulk of the direct mailing has been completed. There are already quite a number which fall into this category!

I will then start working on e-mail requests, followed by incoming bureau cards. The whole process will take several months to complete. Each card will hold the information for 3 QSOs, so if you made lots of QSOs, I hope you enclosed adequate reply paid postage and a strong SAE. If you didn't, I will be replying to your card(s) via the bureau.

Generally speaking, outgoing cards for North America will be bundled together in batches, hand carried across the pond at intervals and mailed from within the USA.

Finally, if you included requests for cards from any of the other stations which I manage and only one SAE, your request for the other station's card(s) will go to the bottom of the pile and be answered when the rest of the D68C cards have been sent out.

Please do not send duplicate cards at this stage. It achieves nothing beyond clogging up my mail box. The mail service within the UK is one of the most secure in the world, and it is most unusual for incoming mail which is correctly addressed not to be delivered. I will make an announcement when all the direct requests have been dealt with. Have patience!



FYI Networks

For Your Information needs

FYI Networks, an Internet Service Provider in Pittsburgh and surrounding areas since 1995, is offering all members of WASH their Basic Internet account for only \$18/month. This includes one e-mail box, 3 MB of disk space, web page hosting, Telnet & FTP access, and in some areas Toll-Free 500 Area Code service. Call FYI toll-free at 1-877-FYI-4NET, or e-mail them at sales@fyi.net, for more details or to sign up. You must mention that you are a member of the Wireless Association of South Hills to get the

Many thanks to FYI Networks for making this special offer available to us for the past three years!

DX News Briefs

P5 North Korea is QRV courtesy of UN relief worker P5/4L4FN! 4L4FN finally was granted permission to bring a rig in and has verbal permission to operate; a true license is "pending." He currently

is running a 20 meter dipole on 10 meters most days on 28.575 listening Up around 2330 Z, and also on Saturdays (his Sundays) on 14.205 around 1500 Z. More info, logs and pictures can be found at www.amsatnet.com/P5.html. QSL via KK5DO, but remember that until a license is actually issued... WFWL! — KK5DO, W3UR

ON6TT is in Kabul with the UN and is QRV as YA/ON6TT/M! The Northern Alliance Foreign Ministry has issued the call YAST to be used by Peter, SM7PKK, S35R, ON4WW or other UN staff. YA5T (only) has already been approved by the DXCC Desk as valid for DXCC! QSL via KU9C — OPDX, W3UR/Daily DX, N7NG/1, K6ANP

The good news? Following the admission of the Pitcairn Island ARA into the IARU, VP6 Ducie Island became the newest DXCC entity. The bad news? The planned Dxpedition to Ducie was scrubbed by bad weather and boat problems. The ops elected to head back rather than operate the CQ WW CW contest from Pitcairn due to the boat problems, but JA1BK donated the antennas, masts, and generators to PIARA for future use for a future Ducie Dxpedition — K6GNX

The Sir Francis Drake Report:

EP2AA & ER3BAH claim W3HNK as their manager; Joe emphatically states "I am not the manager for these two Bimbos!" — W3HNK

EI5IF worked "707A" September 9th, with DL1CW as manager, but ND8L reports this is another Slim, albeit a good op! Still, WFWL, but check with DL1CW before sending any GS or IRC's — EI5IF, ND8L

According to QSL manager LY1DR, QSO's with OJØA Market Reef in late October were Slim at it again — N9BOR

And **F5NOD** reports that recently, someone has been posing as him and posting bad information to the DX clusters — F5NOD

QSL Routes:

EZ1ØA via EZ3A - KDØAL EZ8AQ via DJ1MM – CT1CSN T2T via JN1HOW – JF6OJX **3W2SF** via WB3KHO – ARRL DXB **ZK1NCP** via JR2KDN - W4FOA 4K5CW via UT3UY — UT3UY

R1FJL via UA3AGS — RV6ASU HK1RRL via EA5KB — KI4RU coszz via DK1WI — PA5GN **V26B** via WT3Q — KA2AEV J75KG via KU9C — KU9C xv9sw via SM3CXS — SM5MX SV9/W4WX via W4WX — W4WX MW5EPA via W2GR — W2GR

H44NC is back in Missouri & will not be back in H4 until August 2002. He only brought his logs from 1 July 2000 through 31 May 2001 with him, so QSL's for earlier QSO's will have to wait until his return. QSL direct with SASE/SAE & GS only to Rev. Norried, P.O.Box 2262, Springfield, MO, USA 65801-2262. This address is only good until he returns to Guadalcanal — WF5E

5A1A will be leaving Libya for Germany soon, but he reports that the following new stations are legit: 5A1ASC (via DK4HB), 5A1TA (via EA3GIP) & **5A1HA** (via DJ9ZB) — 5A1A

Veteran QSL Manager **N2AU** is reported to be "very ill" and is "way behind" in QSL duties. KU9C has received the logs for J75KG and is his QSL manager until further notice — KF2TI, KU9C

Also, more sad news: Due to medical problems, **w4FRU** is currently in a nursing home. K4JDJ has assumed all of John's QSL manager duties until further notice. QSL via CBA — OPDX

Thanks to the NJDXA DX News & DX Chat Reflectors, 425 DX News, OPDX News, & ARRL DX Bulletins for our **DX News** information. Thanks also to Bernie McClenny W3UR/The Daily DX for confirmations & additional information.

Page 9 **VOLUME 3 ISSUE 12**

FCC News

ARRL Web Extra courtesy American Radio Relay League

NEWINGTON, CT, November 21st, 2001 — FCC Special Counsel for Amateur Radio Enforcement Riley Hollingsworth says he's letting stand a Warning Notice sent to a Pennsylvania licensee following allegations of deliberate interference. The complaint — which arose in part from split- Objectives: frequency contest operation — alleged that K3NM failed to shift frequency after being notified that the station's signal was interfering with an ongoing contact.

The FCC Warning Notice and its routine publication by ARRL and other media ruffled some feathers within the contesting community. Some worried that "both sides of the story" were not being told;



John King, K5PGW, of Denham Springs, Louisiana, complained to the FCC after the September 9th incident, which occurred while K3NM was operating split mode on 40 Meter SSB during the Worked All Europe Contest. Following up, Hollingsworth sent a Warning Notice September 12th to K3NM licensee Joseph Brue Jr.

King — an attorney — asserted that he was operating mobile and in QSO with Roy Ezell, K9ROY, in Kentucky when K3NM came on frequency without asking if it were in use and began calling "CQ contest." King told the FCC that he and K9ROY attempted to alert the K3NM operator — Matt Vanni, LU9AY/W1 — but were unable to do so, because K3NM was listening on 7.083 MHz, outside the US phone band.

Failing that, King said, Ezell telephoned Brue, letting him know his station was interfering with his contact and asking him to move. King maintained that even after a second telephone call to K3NM, the interference continued.

Vanni subsequently told the FCC that he could not hear K5PGW or K9ROY, even after the telephone calls, so he continued operating the station as he had been. Vanni told the FCC the antenna was a twoelement beam at 112 feet, on the opposite heading from the complainant operator's location. He also told the FCC that he always uses the transceiver's "dual watch" feature to monitor his transmitting frequency when working split on 40 SSB.

On October 13th, 2001, Brue confirmed Vanni's version of events to the FCC and added that Vanni had asked several times if the frequency -7.210 MHz — was in use before transmitting. Brue also verified receiving two telephone calls from the complainants.

After deliberating over the various assertions, Hollingsworth said in an October 30th letter to Brue that he was standing behind his Warning Notice and said it would remain in the licensee's file.

"You could not be expected to protect communications you could not hear, and it may be normal that with such an efficient antenna system you may not have heard certain stations from the back of the beam antenna," Hollingsworth allowed. "The fact remains, however, that both you and Vanni had notice, directly from the complainant operator in two separate telephone calls, that your station was indeed interfering with specific ongoing communications."

Hollingsworth said that, given the two telephone calls, "it was not good Amateur practice to merely ignore the protests of the complainant and continue operating the station without a good faith attempt at compromise or corrective action."



Announcing: The Second Annual WASH 2 Meter Simplex Contest!

Date & Times: Saturday, January 12th, 2002 from 7 to 11 PM EST. (That's January 13th 0000-0400 UTC to the purists!)

- To make as many contacts as possible (within an ~250 mile radius of the Point in Pittsburgh).
- To have fun!

Multipliers:

Power:

Band, Mode & Frequencies: The contest will take place solely on 2 meter FM simplex (no repeater contacts). The frequencies are all standard 2 M simplex frequencies, every 15 kHz, from 146.535 to 146.595 MHz, and 147.405 to 147.585 MHz. The National Simplex Frequency, 146.520, and simplex frequencies below that are not to be used. In the event of accidental QRM with non-contest QSO's in progress, please request that the QSO move to 146.52 or below; should they decline, respect their right to the frequency and QSY.

Power Limit: Maximum 50 watts output. No external amplifiers.

Exchange: Callsign, ZIP Code, contact number, and whether or not you are a Member of WASH. For the purposes of the contest, the 5 Digit ZIP Code for your location is sufficient — do not use the "Zip +4" code. Mobiles and portables should use the ZIP code of their location as determined to the best of their ability. Canadian stations should use their 6 digit postal code.

Example 1: "N3ZEL from N3ZCG, please copy Number 3, 15234, Member." Example 2: "K3VX from K3CM, please copy Number 21, 16801, Non-Member" Example 3: "W3WH from W3OC, please copy Number 7, 15137, Club Station" **Contacts**: Work as many different calls and locations as possible, giving Exchange as noted above. Work each station once per ZIP Code — Mobiles can be reworked whenever they change locations. Remember hilltops work best!

Scoring: Each Contact, non WASH Member: 1 point **WASH Member:** 2 points 3 Points (*) Club Stations:

Number of different ZIP Codes

Stations running 10 watts or less: 2 Stations running over 10 watts:

Final Score: Total Points x Locations x Power

"Club Stations" for the purposes of the contest are those calls assigned by the FCC to bona-fide Amateur Radio Clubs. They include N3SH, WA3SH, WA3COM, W3KWH, N3GC, W3PIE, W3YA, K3HKK, K3CR, W3YI, W3VC, W3PGH, W3EXW, K3MJW, W1AW, etc.

After the Contest: Fill out all the log information. In the upper left corner check whether "base" or "mobile." In the upper right corner be sure to enter your callsign and club affiliation (or "none" if not a member of any club). Please number all log sheets consecutively. Log sheets can be downloaded from the WASH web site, www.washarc.org.

Submit Log Sheets:: Check your log sheets carefully for dupes. Verify that all information is entered.

Send the logs to: WASH 2 Meter Simplex Contest

Ed Oelschlager, N3ZNI

P. O. Box 254

Meadow Lands, PA 15347-0254.

Enclose a SASE #10 for return of results. **Entry Deadline:** February 7th, 2002

Each log submitted with SASE on or before the deadline will receive a raffle ticket to WASHFest 2002 on February 24th!



WASHFest 2002



The South Hills Hamfest Hosted by the Wireless Association Of South Hills, Inc.

Sunday, February 24th, 2001 from 8 AM until 3 PM Rain or Shine (or Snow!)

Hall opens at 6 AM for VENDORS ONLY!!

Castle Shannon VFD Memorial Hall – Rt. 88 in Castle Shannon

One Mile South of Route 51 — Ten Minutes from Downtown Pittsburgh

Talk-in on the 146.955(-) N3RNX Repeater

ARRL DXCC Field Checker for Western Pennsylvania, Mike Lazaroff K3AIR, will again be on-site to verify your QSL cards for DXCC !!!

General admission is still only \$4.00. XYLs and Harmonics under 12 admitted FREE with an adult.

Tables are \$10.00 each without electricity and \$15.00 with electricity (limited number)

All display areas are accessible to the physically challenged.

Main Prize Drawing

Watch this Space!
Main Prizes To Be Announced!

Main prize drawing tickets are \$2.00 each, 3/\$5.00, or 7/\$10.00 Drawing to be held at 2 PM in the main hall.



FREE COFFEE
Courtesy of HAM RADIO
INSURANCE ASSOCIATES
Of Canonsburg
(And DOUGHNUTS
For VENDORS ONLY
6 AM until 8 AM)

have been made!

For additional information, or to reserve your space, contact Steve Lane, W3SRL at (412) 341-1043 or Bill Hill, W3WH at (724) 746–2111 or (724) 746-1776

Email: washarc@vahoo.com Website: www.washarc.org

EIII	an: washarc@yanoo.com wet	osite: www.washarc.org		
Name:		Call Sign:		
Address:		Email:		
Phone: ()		The Wireless Association Of South Hills, Inc. Send reservations to: WASH ARC 897 Lovingston Drive,		
·	er @ \$15.00 each = \$	Pittsburgh, PA 15216-1725. Any table not occupied by 8:00 AM may be resold without refund unless prior arrangements		



WIRELESS ASSOCIATION OF SOUTH HILLS, INC.





	I would like to join WASH!. I am interes	sted in the following ty	ype of membership:	□ New Members	nip 🗆 Membership Renewai	
	(check quarter →)	□ 1st Qtr Jan-Mar	□ 2nd Qtr Apr-Jun	☐ 3rd Qtr Jul-Sept	☐ 4th Qtr Oct-Dec	
	☐ (F1) Full Membership:	\$20.00	\$15.00	\$10.00	\$5.00	
	\Box (F2) Full Membership < 18 or > 65 yrs of age:	\$10.00	\$7.50	\$5.00	\$2.50	
	☐ (A1) Associate Membership:	\$10.00	\$7.50	\$5.00	\$2.50	
	(FM1) Family Membership (F1 or F2 or A1 dues x 20%	x No. of household fa	amily members): \$			
	Name(s):	<u> </u>	-			
Nan	ne:	_	Call Sign:			
Add	ress:	_	License Class:			
City	, State:	_	Expires On:			
Hon	ne Phone:	<u> </u>	Work Phone:			
Email Address:			Birthday:			
	Members Only:		ARRL Member? □	Yes □ No Family A	RRL Member? Yes No	
☐ I do NOT want to be added to the Club E-Mail Reflector ☐ I do NOT want to be added to the Electronic Newsletter Mailing List [If you have an Email address, you Will be added to both lists UNLESS you choose to Opt-Out]		Date:				
Sigr	nature:		Amount Enclosed:	\$		

Please make your check or money order payable to the club treasurer, Mark Stabryla.

The Wireless Association of South Hills, Inc. reserves the right to accept or reject new memberships or renewals.

Please return completed membership form along with check/money order to the club treasurer or mail to:

Wireless Association of South Hills, Inc.

C/O Mark Stabryla N3RDV, VP/Treasurer

1120 McKnight Drive

Bethel Park, PA 15102-2456

Wireless Association of South Hills, Inc. Order Form for "The TLC Embroidery Company" Embroidered Shirts and Hats

Quantity	Item/Description	Size	Color	Unit Cost	Net Cost
				Sub-Total	
				6 % Sales Tax	
				Total Enclosed	

<u>Available</u>	Cost (S M L XL)	Cost (2X 3X 4X
Golf Shirts	\$20.00	\$22.00
Rugby Shirts	\$20.00	\$20.00
Light Jackets	tba	tba
Lined Jackets	tba	tba
Hats	\$10.00	\$10.00

Club logo is not currently available on the hats due to size limitations. Contact TLC Embroidery for more information.

Prices, availability & available colors subject to change without notice.

Use additional sheet(s) if necessary

Make checks payable to Sharon Cox Mail to: The TLC Embroidery Company 366 Dry Ridge Road West Alexander, PA 15376

Phone: 724 - 484 - 7703

Wireless Association of South Hills, Inc

www.washarc.org

Inside This Issue:

Care & Feeding of Antenna Analyzers, Part Last Call on the Christmas/Holiday Party!

2 of 3

Packet is Dead? What does the WPA ASM for Packet say about that?

Tips on Internet Shoping!

WASHFest 2002 Is Coming Up!

The 2M FM Contest is Coming Up Next Month, Too!

All this and more... waiting for your right inside these pages... CONGRATULATIONS ON A JOB

WELL DONE!

Larry K3VX, Shawn NØPEU and Steve W3SRL were

presented with official N3SH "Clean Sweep" Brooms at the November meeting in to recognize them as the operators of the first WASH club station to work all 67 Counties in the 2001 Pennsylvania QSO Party. And don't worry, there's one for Bill W3WH too, as soon as we catch up with him!

Photo Courtesy of & ©Copyright 2001 Ron Notarius WN3VAW



The *WASH*Rag

Ron Notarius WN3VAW, Editor 3505 Rosalia Avenue Castle Shannon, PA 15234-2317

